



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/675,943

Atty Dkt No. : 100203850-1 (32939/US)

Applicants : Doron SHAKED; Renato KESHET

Filed : October 2, 2003

Title : ROBUST RECURSIVE ENVELOPE OPERATORS FOR FAST RETINEX-TYPE
PROCESSING

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. §§ 1.56 and 1.97 through 1.98, applicants wish to make known to the Patent and Trademark Office the references set forth on the attached form PTO-1449 (copies of the cited references, as required under 37 C.F.R. § 1.98, are enclosed). Although the aforesaid references are made known to the Patent and Trademark Office in compliance with applicants' duty to disclose all information they are aware of which is believed relevant to the examination of the above-identified application, applicants believe that their invention is patentable.

Although the aforesaid references are made known to the Patent and Trademark Office in compliance with applicants' duty to disclose all information they are aware of which is believed relevant to the examination of the above-identified application, applicants believe that their invention is patentable.

Please acknowledge receipt of this Information Disclosure Statement and kindly make the cited references of record in the above-identified application.

Respectfully submitted,

DORSEY & WHITNEY LLP

Daniel E. Fisher

Daniel E. Fisher
Registration No. 34,162

2/9/04

Date

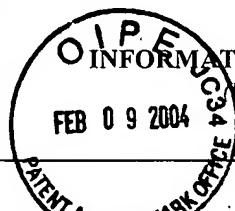
DEF:mp

Enclosures:

Form PTO-1449
Cited References (30)

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FORM PTO-1449
(REV.7-80)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
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Doron SHAKED; Renato KESHETFILING DATE
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GROUP ART UNIT

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	4,384,336	05/17/1983	Frankle et al.	382	49	
	AB						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AC							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

✓ AD	A. Blake, "Boundary Conditions of Lightness Computation in Mondrian World," <i>Computer Vision Graphics and Image Processing</i> , Vol. 32, pp. 314-327, 1985
✓ AE	D. Barash, "A Fundamental Relationship Between Bilateral Filtering, Adaptive Smoothing, and the Nonlinear Diffusion Equation," <i>IEEE Trans. on PAMI</i> , Vol. 24, pp. 844-847, 2002
✓ AF	M. J. Black et al., "Robust Anisotropic Diffusion," <i>IEEE Trans. on Image Proc.</i> , Vol. 7, pp. 421-432, 1998
✓ AG	P. J. Burt et al., "Fast Filter Transforms for Image Processing," <i>Computer Graphics and Image Processing</i> , Vol. 6, pp. 20-51, 1981
✓ AH	P. J. Burt et al., "The Laplacian Pyramid as a Compact Image Code," <i>IEEE Trans. on Communication</i> , Vol. 31, pp. 532-540, 1983
✓ AI	R. Deriche, "Using Canny's Criteria to Derive a Recursively Implemented Optimal Edge Detector," <i>Int. J. of Computer Vision</i> , Vol. 1, pp. 167-187, 1987
✓ AJ	J. M. DiCarlo et al., "Rendering High Dynamic Range Images," <i>Proc. SPIE</i> , Vol. 3965, pp. 392-401, 2000
✓ AK	L. Dorst et al., "Morphological Signal Processing and the Slope Transform," <i>Signal Processing</i> , Vol. 38, pp. 79-98, 1994
✓ AL	F. Durand, et al., "Fast Bilateral Filtering for the Display of High Dynamic Range Images," preprint < http://graphics.lcs.mit.edu/~fredo/DurandBilateral.pdf >
✓ AM	M. Elad, "On Origin of the Bilateral Filter and Ways to Improve It," <i>IEEE Trans. on Image Processing</i> , Vol. 11, pp. 1141-1151, 2002

EXAMINER

DATE CONSIDERED

* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

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INFORMATION DISCLOSURE STATEMENT <i>(Use several sheets if necessary)</i>		APPLICANT(S) Doron SHAKED; Renato KESHET	
		FILING DATE October 2, 2003	GROUP ART UNIT

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

✓ BA	O. D. Faugeras, "Digital Image Color Processing Within the Framework of a Human Visual Model," <i>IEEE Trans. on ASSP</i> , Vol. 27, pp. 380-393, 1979
✓ BB	B. Funt et al., "Retinex in Matlab," <i>Proc. of IS&T 8th Color Imaging Conference</i> , pp. 112-121, 2000
✓ BC	J. Gil et al., "Efficient Dilation, Erosion, Opening and Closing Algorithms," <i>Proc. 5th Int. Symp. Mathematical Morphology and its Applications to Image and Signal Processing</i> , V. Series, pp. 301-310, 2000
✓ BD	B. K. P. Horn, "Determining Lightness from an Image," <i>Computer Graphics and Image Processing</i> , Vol. 3, pp. 277-299, 1974
✓ BE	D. J. Jobson et al., "A Multiscale Retinex for Bridging the Gap Between Color Images and the Human Observation of Scenes," <i>IEEE Trans. on Image Proc.</i> , Vol. 6, pp. 965-976, 1997
✓ BF	R. Kimmel et al., "A Variational Framework for Retinex," <i>Hewlett Packard Technical Report HPL-1999-151</i> , June 1999
✓ BG	R. Kimmel et al., "Space Sensitive Color Gamut Mapping: A Variational Approach," <i>Hewlett Packard Technical Report HPL-2000-50</i> , April 2000
✓ BH	E. H. Land, "The Retinex Theory of Color Vision," <i>Scientific American</i> , Vol. 237, pp. 108-128, 1977
✓ BI	E. H. Land, "Recent Advances in the Retinex Theory and Some Implications for Cortical Computations: Color Vision and the Natural Image," <i>Proc. National Academy of Science USA</i> , Vol. 80, pp. 5163-5169, 1983
✓ BH	E. H. Land, "An Alternative Technique for the Computation of the Designator in the Retinex Theory of Color Vision," <i>Proc. National Academy of Science USA</i> , Vol. 83, pp. 3078-3080, 1986
✓ BK	E. H. Land et al., "Lightness and the Retinex Theory," <i>J. Optical Soc. of America A</i> , Vol. 61, pp. 1-11, 1971
✓ BL	J. McCann, "Lessons Learned from Mondrians Applied to Real Images and Color Gamuts," <i>Proc. IS&T/SID 7th Color Imaging Conference</i> , pp. 1-8, 1999
✓ BM	A. Rosenfeld et al., "Sequential Operations in Digital Picture Processing," <i>J. of the ACM</i> , Vol. 13, pp. 471-494, 1966
✓ BN	R. Sobol, "Improving the Retinex Algorithm for Rendering Wide Dynamic Range Photographs," <i>Proc. of SPIE</i> , Vol. 4662, pp. 341-3487, 2002

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CA	T. G. Stockham, Jr., "Image Processing in the Context of a Visual Model," <i>Proc. of the IEEE</i> , Vol. 60, pp. 828-842, 1972
CB	C. Tomasi et al., "Bilateral Filtering for Gray and Color Images," <i>Proc. ICCV</i> , 1998
CC	J. Tumblin et al., "Two Methods for Display of High Contrast Images," <i>ACM Trans. on Graphics</i> , Vol. 18, pp. 56-94, 1999
CD	J. Tumblin et al., "LCIS: A Boundary Hierarchy for Detail-Preserving Contrast Reduction," <i>SIGGRAPH</i> , pp. 83-90, 1999
CE	D. Terzopoulos, "Image Analysis Using Multigrid Relaxation Methods," <i>IEEE Trans. on PAMI</i> , Vol. 8, pp. 129-139, 1986
CF	

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